Cigarette paper increase of cigarette burning rate 68:91	lung neoplasm morbidity rates by 67:33-34 lung neoplasm mortality rates
Cigarettes	67:135-137
definition and processing 73:175	lung neoplasm mortality ratios 67:34, 135-140
and development of esophageal neo- plasms	mouth neoplasm mortality rates by 67:146
71:12, 293	mouth neoplasm mortality ratios by
flavor, terpenoids as source of	67:146
64:52 low nicotine, and respiratory symptoms	pancreatic neoplasm mortality rates in men by
64:289	67:159
low nicotine, ciliastatic effect of	pancreatic neoplasm mortality ratios in
64:268	men by
modified, effect on respiratory symp- toms and ventilatory capacity	67:159
73:37, 38	peptic ulcer mortality rates in male smokers by
portion smoked, dosage score as func-	67:182
tion of	per capita
67:15 similarities with little cigars	64:26, 45, 46, 185
73:224, 225	pharyngeal neoplasm mortality rates by 67:146
tar and nicotine content	pharyngeal neoplasm mortality ratios
72:142, 143	by 12100
tar levels of, relationship to lung neo-	67:146
plasm development 71:275, 276	prevalence of
taxation	64:361-374
69:4, 57	respiratory tract neoplasm mortality rates by
see also Cigarettes, filter; Cigarettes, low-	67:147
nicotine; Cigarettes, non-nicotine;	stomach neoplasm mortality rates by
Cigarettes, non-tobacco	67:157
Cigarettes, daily consumption aortic aneurysm mortality by	stomach neoplasm mortality ratios by 67:157
69:16	tracheal neoplasm mortality rates by
and atypical nuclei in larynx	67:147
69:59	in tuberculars
average, dosage score as function of 67:15	64:277
bladder neoplasms mortality rates by	urogenital neoplasm mortality ratios for male smokers by
67:155	67:154
bronchitis mortality ratios by 67:90	Cigarettes, filter
coronary disease incidence rates	decrease in tar yields
67:58; 69:15; 21-24	68:91
coronary disease mortality rates by 67:51; 69:13	effect on respiratory symptoms 73:55
coronary disease mortality ratios by	increase in
67:49	64:46 and polonium-210 content in tobacco
coronary disease mortality ratios for	smoke
male smokers by 67:48	68:92
digestive tract neoplasm mortality rates	production of, in U.S., by year
by	64:46
67:147	and risk of lung neoplasms 69:57; 75:44
effect on lung neoplasm mortality in Poland	summary of previous findings
72:61, 62	75:4
esophageal neoplasm mortality ratios by 67:150	vs. nonfilter, and risk of lung neoplasms 74:40, 41
increase in, by women 64:363	vs. nonfilter, comparison of safety 69:57
laryngeal neoplasm mortality rates by	vs. nonfilter, effect on sputum produc-
67:147	tion 73:37, 38
liver cirrhosis mortality rates by 67:184	·
liver cirrhosis mortality ratios by	Cigarettes, low-nicotine respiratory symptoms from
67:184	64:268

Cigarette smoke	cigarette smoke as
see Smoke, cigarette	64:33, 35, 370
Cigarette smokers see Smokers, cigarette	formaldehyde gas as 64:268
Cigarette smoking	gas phase as
see Smoking	64:34
Cigarettes, non-nicotine	hydrogen cyanide as
effect on apexcardiogram	64:268
72:21	nicotine as
effect on carboxyhemoglobin levels	64:268
73:17, 18	nitrogen dioxide as
Cigarettes, non-tobacco	64:268
64:59	ozone as
Cigars	64:268
definition and processing	sulfur dioxide as
73:175, 176	64:268, 295
per capita consumption	Ciliatoxic agents
64:26, 45 Cigars, little	acetic acid 67:108
chemical composition of	acrolein
73:224, 225, 228	67:107
evaluation of potential public health	in cigarette smoke
impact	67:107
73:222-228	crotonaldehyde
shipment for domestic consumption	67:108
(1970-1972)	cyanides
73:222-224, 227	67:107
similarity to cigarettes	effect on adenosine triphosphatase
73:224, 225	67:108
sugar and pH differences with large cigar	effect on oxidative enzymes
and cigarettes	67:108
73:222-224	formaldehyde
tar and nicotine content	67:107
73:224-226, 228	formic acid 67:108
Cigar smoke	phenols
see Smoke, cigar	67:108
Cigar smokers	propionic acid
see Smokers, cigar; Smokers, cigar and	67:108
pipe	Circulatory diseases
Ciliary activity	64:113
64:61	Circumcision
clearance mechanism by	64:224
64:267, 268	Clofibrate
effect of cigarette smoke in animals	and reduction in risk of sudden death in
68:71, 72	cigarette smokers
effect of nitrogen dioxide, in rats 74:103	75:32
effect of pipe/cigar smoke vs. cigarette	Closing volume abnormalities
smoke in cats	as indicator of small airways disease, in
73:217, 218	smokers vs. nonsmokers
effect of smoke on	74:84-87; 75:71, 72
64:27, 34, 35, 61, 168, 169, 170,	Coal dust
172, 173, 267; 67:107-108; 69:42	effect on pulmonary function in smokers
effect of smoking on	vs. nonsmoker
74:101, 102	73:41-43
loss of, in smokers	effect on respiratory symptoms in smok-
64:168, 169, 170, 172, 173	ers vs. nonsmokers 73:41-43
morphological changes in cilia	Coal gas workers
64:267, 268, 271	64:232
transport	lung neoplasms in
64:61, 267, 268	64:193
Ciliary depressants	
64:27, 33, 34, 61, 267, 268	Coal miners pneumoconiosis and
acrolein as 64:267, 268	72:42-44
ammonia as	respiratory function tests in
64:268	64:289, 293, 294
V1.200	, · · · ·

respiratory symptoms in 64:298, 299	figures on incidence of oral neoplasms 71:284
Coal tar	Constitutional hypothesis
benzo(a)pyrene content of	64:190, 191, 192, 193
64:148	refutation of
neoplasm induction by	64:192
64:33, 147, 167, 229	relationship to CHD and smoking
Cocaine	71:48-49, 105-106
64:349	Contraceptives, oral
Coca leaves	incidence of stroke and, in women smok-
64:349	ers vs. nonsmokers
Cocarcinogens	74:16, 17
64:33, 58, 142, 144, 145	smoking and
benz(a)anthracene as	72:26
64:58	thrombophlebitis and
carboxylic acids as	72:26
67:131	Control populations
croton oil as	bias in selection of
64:58	64:181, 217, 231
fatty acids as	Copenhagen
64:58, 59	
	neoplasm study in 64:220, 222, 224
nickel carbonyl as 69:62	Tuberculosis Station
	64:141
phenois as	
64:54, 58, 59; 67:31	Copper
in tobacco smoke	64:193
64:33; 69:61	nitrate
in tobacco tars	64:60
67:131	sulfate
Cocoa	64:354
64:349	Coppersmiths
Coffee drinking	64:134
64:349	Cornfield method
angina pectoris, smoking, and	64:155, 159, 160
74:8	Cornsilk
myocardial infarction, smoking and, in	smoking, lack of arterial epinephrine
smokers vs. nonsmokers	level increase
74:8; 75:19, 20	71:57
Cognition	Coronary circulation
and smoking habit	64:318; 68:41-43
67:189-191	Coronary diseases
Cologne,	64:8, 29, 36, 38 103, 106, 108, 317,
autopsy records in	320-327, 384, 385
64:150	age-adjusted rates in smokers
Colonic polyposis	71:23
64:191	by amount smoked
Combustion temperature	69:12-13, 18
effect on tumorigenic activity of pipe	arteriosclerotic, mortality rates in U.S.
and cigarette tobacco	71:21
73:210, 211	associated risk factors and smoking
Common colds	74:17
64:276	atherosclerosis
Compensatory behavior,	64:320
smoking as	atherosclerosis, effects of smoking on
64:372	71:4,63
Congenital malformations	autopsy studies
maternal smoking and	72:19, 20; 74:4
72:87; 73:136, 137	and behavior
Congestive heart failure	67:57
64:320	blood pressure of smokers vs. nonsmok-
Connecticut Cancer Registry	ers
64:127, 128	71:43, 47
data from	carbon dioxide effects on oxygen uptake
64:135	in
figures on age-adjusted larynx neoplasm	71:62
incidence	carbon monoxide and
71:277	74:4

carboxyhemoglobin levels and incidence in middle-aged men from var-72:27 ious countries cross-sectional study in Bergen, Norway 74.6 72:16 incidence in miners in Sardinia death ratios of paired combinations of 73:10 high risk incidence in Minnesota men by age and 71:25 smoking habit effect of coffee drinking and cigarette 72:14-16 smoking incidence in pipe and cigar smokers 75:20 73:215, 216 effect of norepinephrine levels incidence in smokers vs. nonsmokers, 68:38 Peoples Gas Co. Study effect of smoking on blood circulation in 74:6,7 67:26, 61-62 incidence in smokers vs. nonsmokers, effect on blood circulation Stockholm Prospective Study 67:62-63 effect on blood pressure incidence in tribal population area, New 67:54 Guinea epidemiological studies 74:9 64:320, 321, 322; 69:25; 72:14-16; incidence in twins 73:4-11; 75:14, 15 68:29 incidence in white males by body weight etiology of 64:320, 321, 322 and smoking habit excess deaths in 73:5 64:113 incidence in whites vs. blacks in Evans experimental studies County, Georgia 73:4,5 73:13-19 heredity as a factor incidence in women, smokers vs. non-72:18 smokers high blood pressure in 74:9,10 64:38 incidence of, relation to angina pectoris high serum cholesterol in 67:53 64:38 incidence of, relation to blood cholesterincidence and education level ol levels 68:24 67:58 incidence and mortality rates in former incidence of, relation to blood pressure smokers 67:58 71:46, 47-48 incidence of, relation to body weight incidence in European vs. American men 73.9 incidence of, relation to electrocardioincidence in farmers vs. nonfarmers by graphic abnormalities smoking habit 67:58 73.7 incidence of, relation to hemoglobin incidence in Hawaiian men of Japanese levels ancestry 67:58 73:10 incidence of, relation to myocardial inincidence in Japanese male smokers vs. farct nonsmokers 67:53 68:17 incidence of, relation to socioenvironincidence in lawyers mental stress 68:25 67:56 incidence in male bank employees in incidence rates, by age Brussels, Belgium 67:54, 57-58; 68:21; 69:21-22, 24 73:10 incidence rates, by amount smoked incidence in males by smoking habits or 67:54, 57-58 physical activity incidence rates, by behavior type 68:20.25 69:20, 24 incidence in male smokers vs. nonsmokincidence rates, by smoking and other risk factors 68:17, 18, 20, 23, 25, 27, 28, 37 69:23 incidence in men in Yugoslavia incidence rates, by smoking history 73:9 69:21-24 incidence in men under 60, in New incidence rates in men South Wales 67:65; 69:21-22 incidence rates in twins, smokers vs.

nonsmokers

67:59

74:4-6

incidence in men with and without

ventricular premature beats

```
69:18, 20-22
                                                      64:322
                                                    mortality rates in hypertensives vs. non-
in India
    73:11
                                                       hypertensives
                                                       71:42
infarction in NYC pipe and cigar smok-
                                                   mortality rates in industrial workers
   ers
    71:32.38-39
                                                      64:323
infarction, relationship to physical act-
                                                   mortality rates in Japanese men and
    ivity, smokers vs. nonsmokers
                                                       women by cigarette consumption and
                                                       age started smoking
    71:44
interaction of smoking and other risk
                                                       73:7,8
                                                   mortality rates in longshoremen
   factors
    72:16-18; 73:4-11
                                                       72:14
in Irish smokers vs. nonsmokers
                                                   mortality rates in obese vs. nonobese
   68:18
                                                      71:45
morbidity ratios
                                                   mortality rates in smokers vs. nonsmok-
   67:59; 69:19
morbidity ratios, and blood pressure
                                                      71:21-22, 24, 26-29
   67:55
                                                   mortality rates in smoking men in Fin-
morbidity ratios, and lung function
                                                      land
   67:56
morbidity ratios, by age
                                                   mortality rates in United States
   67:54
                                                      67:47; 68:16
morbidity ratios, by blood cholesterol
                                                   mortality rates in, with increased carbon
  levels
                                                      monoxide
                                                      71:62
                                                   mortality rates of cigarette smokers
morbidity ratios, by personality charac-
    teristics
                                                      from, AHA pooling project
                                                      71:28, 30, 39
morbidity ratios, by sociocultural mobil-
                                                   mortality rates of paired combinations
    ity status
                                                      of high risk
    67:57
                                                      71:25
morbidity ratios, in New Delhi, India
                                                   mortality rates of U.S. veterans
                                                      71:26, 38
morbidity, relationship of smoking to
                                                   mortality rates, relationship to electro-
   71:32-35, 37, 39, 93-97
                                                      cardiographic findings
mortality and morbidity retrospective
                                                      71:42
                                                   mortality ratios, by age
   studies
    71:40, 93-97
                                                      67:25, 26, 28, 49-50, 52; 69:13
mortality rates
                                                   mortality ratios, by age and blood pres-
   64:25, 29, 32, 38, 39, 184, 320, 321, 324; 67:8, 25-26
                                                      sure
                                                      67.53
mortality rates among former college
                                                   mortality ratios, by age and smoking
   students
                                                      67:51-52
   69:16, 18
mortality rates and per capita cigarette
                                                   mortality ratios, by amount smoked
   consumption in several countries
                                                      67:48-49; 69:13
                                                   mortality ratios, by sex
                                                      67:25, 28; 69:13-14
mortality rates, by age
                                                   mortality ratios, by smoking history
   67:25, 28, 47, 49-51; 69:13-14
                                                      67:25, 28
mortality rates by blood pressure
                                                   mortality ratios, effect of associated
   69:14
                                                      diseases
mortality rates by relative weight
                                                      67:51-52
   69:14
                                                   mortality ratios in pipe and cigar smok-
mortality rates, by sex
   67:25, 27, 28, 47, 49-50; 69:13-14
                                                      73:215, 216
mortality rates, by smoking
                                                  and multiple risk factors
   67:25, 28, 49-51; 69:13-14
                                                      68:28-30
mortality rates, effect of associated dis-
                                                  in Nepal
   eases on
                                                      73:11
   67:51-52
                                                   in New Zealand
mortality rates, effect of cessation of
                                                      73:11
   smoking on
                                                  nicotine and
   67:25, 27-28, 50
                                                      74:13
mortality rates, ex-smokers by smoking
                                                  nicotine effect on coronary blood flow
   history
   67:51
                                                      71:58
```

mortality rates in heavy smokers

incidence rates, smokers vs. nonsmokers

obesity in	smoking in thrombus formation 67:26, 64-65
64:38 occlusion in	smoking risk factor
64:320	71:8
occupational risks in 64:321, 322	sudden death, and smoking 67:53; 71:52
pathophysiology of, effect of carbon	summary of previous findings
monoxide exposure	68:16; 75:4, 7 summary of relationship to smoking
74:10 and personality characteristics	74:3, 4, 19
64:321, 326; 67:57	symptoms of
predisposing characteristics 67:58	64:320 twin studies
prevalence of	72:18
64:320, 321	in women
relationship of blood pressure and smok-	64:321
ing	see also Angina pectoris; Arteriosclerosis; Atherosclerosis; Cardiovascular diseases
71:45, 47	Coronary Drug Project Research Group
relationship of heart rate and smoking 71:45, 47	epidemiologic study of smoking and
relationship of physical activity and	CHD
smoking	74:4-6
71:41, 43, 44	Coronary heart disease
relationship of triglycerides to	see Coronary diseases Coronary vessels
71:65 relationship to constitutional makeup	effect of cigarette smoking on
and smoking	67:65
71:48-49, 105-106	Coronene
relationship to ECG abnormalities and	64:147
smoking	Cor pulmonale
71:45, 47 relationship to obesity and smoking	and chronic obstructive pulmonary dis- ease
71:43-45	74:76
retrospective studies in Goteborg, Swe-	Cotinine
den	64:71
72:16 retrospective studies in Prague, Czech-	desmethyl- 64:72
oslovakia	effect on rats and mice
72:16	69:61-62
risk factors	in experimental induction of bladder adenomas
71:23-24, 40-41 risk factors and personal characteristics	69:64
68:26	methonium ion, structure of
role of glucose metabolism	64:72
68:40, 41	Cough
in Seventh Day Adventists	64:280, 281, 282, 283 chronic
64:322 smokers' age effects on development	64:27, 280, 281, 282, 283, 299, 302
71:27, 39	chronic, and cigarette smoking in males
in smokers vs. nonsmokers	68:69
68:26, 42, 43	chronic, in women 64:282, 285
in smokers with predisposing factors 71:24	effect of air pollution and smoking
smoking and	64:297; 74:90, 91
67:26, 54, 64-65; 69:3-5, 11, 20;	effect of asbestos exposure in smokers
71:5	vs. nonsmokers 73:41
smoking and, in individuals under 40	effect of coal dust exposure in smokers
years	vs. nonsmokers
73:10	73:41,42
smoking and, in myocardial ischemic patients in Italy	effect of filtered cigarettes
73:10	73:55 effect of modified cigarettes
smoking as cause of death	73:38
67:25-27	epidemiology of
smoking as etiologic agent in	67:97
67:26, 54, 62, 65, 66; 69:11; 72:1,	ex-smokers vs. nonsmokers 67:98
2, 13, 14	07.70

of percental ampliance and acceptations	Correct Benulation Surrey of 1955
of parental smokers, and respiratory symptoms in children	Current Population Survey of 1955 64:177, 180, 186
75:103, 105	Curschmann's spirals
prevalence in cement and rubber indus-	in sputum of smokers
try workers, smokers vs. nonsmokers	69:39-40
74:95, 96	Customs and Excise Act of 1952, Great
prevalence in pipe and cigar smokers 73:220, 221	Britain 64:62
prevalence in smoking vs. nonsmoking	Cyanides
women in Bordeaux, France	detoxification, in pregnant smokers vs.
73:36	nonsmokers
prevalence of	73:119
64:38, 280, 283, 284, 289, 291, 301,	in tobacco amblyopia etiology
302 prevalence of among smokers	67:40; 71:14, 435-436; 72:6 in tobacco smoke
67:103	67:40
prevalence of, in smoking-discordant	in tobacco smoke, and optic atrophy
twin pairs	67:183
67:103	toxicity, potentiation by vitamin B12 in
respiratory function in presence of	tobacco amblyopia
64:291, 292 in school-age smokers vs. nonsmokers	67:183 and vitamin B deficiency in tobacco
75:62	amblyopia
smokers vs. nonsmokers	67:40
67:29; 72:40	Cysteine
and smoking	inhibition of smoke cytotoxic action on
64:297; 67:97	macrophages
and smoking, by sex 67:98	69:42 Cystitis
and sputum	64:224
64:283-286	Cytochrome oxidase
traumatic injury from	64:266
64:279	Cytologic studies
Coumarin 64:145	exfoliative, and lung neoplasm diagnosis 75:47
Creosote oil	macrophage function and smoking
carcinogenic activity of	74:104, 105
64:147	Czechoslovakia
Cresols	64:205
in cigar, pipe, and cigarette smoke 73:177	laryngeal neoplasms in, relationship to
as probable contributors to health haz-	tobacco use 71:354, 357
ards of smoking	laryngeal neoplasms in, retrospective
72:144	study of
suspected carcinogenic agent of cigarette	64:206
smoke 71:266	serum lipid difference in smokers vs.
Crotonaldehyde	nonsmokers 71:101
ciliatoxic agent	71.101
67:108	
in tobacco smoke	
67:108 Croton oil	Danish Cancer Registry
64:58	64:141, 186, 220 Danish Morbidity Study
Crotononitrile	64:224
as suspected contributor to health haz-	Data collection methods
ards of smoking 72:145	in retrospective studies
Cuba	64:206, 214, 215, 226
laryngeal neoplasms in	DDT 64:145
64:205, 207	as suspected contributor to health haz-
laryngeal neoplasms in, relationship to	ards of smoking
tobacco use 71:356	72:65, 145
oral neoplasms in, by type of smoking	Death certification
64:200, 201	limitations of, in health statistics
oral neoplasms in, relationship of tobac-	64:101, 127
co use	neoplasm diagnosis in 64:128
71:364	· · · · · · · · · · · · · · · · · · ·

Death Registration Act	Dermatologists
64:127	coronary disease incidence in
Deaths, accidental	64:322
64:39, 344, 345	Dextroamphetamine
Deaths, sudden	64:352
from cardiovascular disease	Diabetes mellitus
68:36, 42	64:326
incidence in men with and without	effect on CHD in smokers
ventricular premature beats	71:24
74:5	relationship with cigarette smoking in
incidence in pipe and cigar smokers 73:215	peripheral vascular disease
incidence in women, smokers vs. non-	71:72
smokers	risk in mortality from CVD
74:9, 19	71:67 Diarrhea
rate by smoking, cholesterol, and blood	smoking and
pressure,	64:71
69:17	Dibenz(a,h)acridine
reduction of risk of, in cigarette smok-	64:56
ers, using clofibrate	carcinogenicity
75:32	67:127
smoking as a risk factor	carcinogenic properties in cigarette
74:4-6, 19	smoke from
Defense mechanisms	71:265
64:264	pyrolytic formation of
Demographic factors	64:59
in smoking	structural formula of
64:361-365	64:59
Denmark	Dibenz(a,j)acridine
advertising curtailment in 64:8	carcinogenicity
atherogenic effect of carbon monoxide	67:127
and hypoxia	carcinogenic properties in cigarette
71:64	smoke from
bladder neoplasms in	71:265
64:219, 220, 221	pyrolytic formation of 64:59
bladder neoplasms in, methods and re-	structural formula of
sults in retrospective studies of smok-	64:56
ing and	in tobacco smoke
71:381, 383	67:127
carbon monoxide effects on human	Dibenzanthracene
blood lipids in	tumor induction by
71:129	64:143, 167
carbon monoxide effects on rabbit blood	Dibenz(a,c)anthracene
lipids in	carcinogenicity, as component of ciga-
71:129	rette smoke 72:66
coronary mortality in 64:320	Dibenz(a,h)anthracene
cough prevalence in	carcinogenicity
64:281	67:127
Danish Cancer Registry	carcinoma induction by
64:141, 186, 220	64:229
Danish Morbidity Study	structural formula of
64:224	64:56
lung neoplasm mortality in	7H-Dibenzo(c,g)carbazole
64:176	carcinogenic effect in laboratory animals
respiratory function tests in	73:79
64:291	carcinogenic effect on respiratory tract
serum lipid differences in smokers vs.	in hamsters
nonsmokers in	72:66, 67
71:102	carcinogenicity, as component of ciga-
twins in, angina pectoris in smokers vs.	rette smoke
nonsmokers 71:51	67:127;71:265;72:66,67
Deoxyribonucleic acid	structural formula of
see DNA	64:56
See DNA Dermatitis	Dibenzo(a,i)pyrene
among tobacco workers	64:33, 57
72:111	carcinogenicity 67:127
	U1.141

structural formula of 64:26	effect of aromatic hydrocarbons on 69:61
Dicarbonyl compounds 64:53	effect of cigarette smoke on synthesis 69:62-63
Dieldrin	increases in smokers' oral epithelial cells
64:62	71:288
Diet	levels in mice lung exposed to cigarette
influence of, in coronary disease 64:322	smoke 71:161
intervention and cholesterol levels in	Dogs
postinfarction patients 68:23	atherogenic effects of nicotine in 71:120
and peptic ulcer	bladder neoplasms in, fed 2-naphthyl-
67:182 and smoking	amine 71:296
67:66	bradycardia and tachycardia in, follow-
and smoking, effect on blood lipids	ing nicotine injection
73:12	71:57-58
as test constant	bronchogenic carcinoma induction in,
64:224	from cigarette smoke inhalation
tobacco amblyopia 72:6	71:269, 270 cigarette smoke instillation or implanta-
Diethylnitrosamine	tion effects on tracheobronchial tree
suspected carcinogenic properties in ciga-	of
rette smoke from	71:268, 347
71:265	death in, causes from cigarette smoke
Digestive tract neoplasms	inhalation
mortality, and smoking	71:271
67:10, 147	effect of cigarette smoke on pulmonary clearance in
Digital blood flow effect of smoking	71:164, 170
64:318	epinephrine release in
Digital temperatures	64:318, 319
effect of smoking	experimental neoplasm induction in
64:318	64:146, 165, 189
Dihydric alcohols 64:52	fetal bronchial tubes of, effect of ciga- rette smoke on
Dimethylamine	71:345
as suspected contributor to health haz-	lung neoplasms following cigarette
ards of smoking	smoke inhalation
72:145	71:239, 277
9-10-Dimethyl-1, 2-benzanthracene 64:203	lung neoplasms in, types and lobes where found
7, 12-Dimethylbenz(a)anthracene	71:269, 272-273
effect on oral mucosa in hamsters 72:70	lungs of, cigarette smoke effects on surfactant activity
Dimethylnitrosamine	71:172, 225
suspected carcinogenic properties in ciga- rette smoke from	myocardium, nicotine effects on 71:58
71:265	neoplasm development in smoking, per-
Dipalmityl ketone 64:53	centages of 71:274
Dipentene	nicotine effect on
64:52	64:71, 318, 319
2,3-Diphosphoglycerate	ozone effect on
effects of carbon monoxide on 71:60-61	64:295, 296
Disability	pulmonary histological changes in ciga-
of emphysema patients 68:66	rette smoke inhaling 71:158, 159-160
higher rates of smokers	respiratory tract of, cigarette smoke in-
68:7	halation effects on
DNA	71:268, 352, 353
alteration, and oral neoplasm carcino-	smoke deposition in 64:265
genesis 68:101	smoke-induced bronchoconstriction in,
binding of polycyclic hydrocarbons to	atropine effects
73.86 87	71:163

smoking and nicotine effects on blood	potentiating action of nicotine, in ani-
lipids in	mals
71:127-128	73:161-163 prevalence in smokers, mechanism of
smoking and nicotine effects on cardio- vascular function in	action
71:107-112	73:160
smoking and nicotine effects on cate-	smoking and
cholamine levels in	72:6, 97, 98
71:119	Dust exposure
Doll & Hill study	64:298, 299
64:324	bronchitis and
Donkeys	73:44
effect of cigarette smoke on pulmonary	COPD development from
clearance in	71:153, 218
71:164, 171 Dorn study	as occupational hazard 73:43, 44
Dorn study 64:324	in smokers vs. nonsmokers, by race and
Dosage	sex
measure of, in light and heavy smokers	75:69, 70
67:14-15	smoking and
measure of, in men and women	73:44
67:14-15	smoking and, as risk factors in bronchitis
and mortality among women smokers	development
67:25	74:93, 94
nicotine and tar content of cigarette smoke as measurement of	smoking and, as risk factors in byssinosis
67:15	development 74:94-96; 75:68
score, for smoking	Dysphoria
67:14-15	64:350
smoking exposure	Dyspnea
67:25	64:286
Driving habits	prevalence in cigar and pipe smokers
and coronary disease	73:220, 221
64:322	
Drug addiction	
Drug addiction 64:350, 351, 352	
64:350, 351, 352	
	Ear neoplasm
64:350, 351, 352 definition of	Ear neoplasm 64:147
64:350, 351, 352 definition of 64:351	
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of	64:147 Edentulism smoking and
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353	64:147 Edentulism smoking and 69:87;72:6
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth	64:147 Edentulism smoking and 69:87;72:6 Educational level
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin	64:147 Edentulism smoking and 69:87;72:6 Educational level 64:100, 101 and incidence of CHD, in males
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in	64:147 Edentulism smoking and 69:87;72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin	64:147 Edentulism smoking and 69:87;72:6 Educational level 64:100, 101 and incidence of CHD, in males
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195	64:147 Edentulism smoking and 69:87;72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks	64:147 Edentulism smoking and 69:87;72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary his-
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of	64:147 Edentulism smoking and 69:87;72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:37 mortality ratios in 64:103, 337	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:37 mortality ratios in 64:103, 337 mortality ratios in male cigar and pipe	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58,68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12 effect of smoking, in young military
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:37 mortality ratios in 64:103, 337 mortality ratios in male cigar and pipe smokers	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12 effect of smoking, in young military recruits in Poland
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:103, 337 mortality ratios in 64:103, 337 mortality ratios in male cigar and pipe smokers 73:222	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12 effect of smoking, in young military recruits in Poland 73:12
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:37 mortality ratios in 64:103, 337 mortality ratios in male cigar and pipe smokers 73:222 nicotine induced, in cats	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12 effect of smoking, in young military recruits in Poland 73:12 Electroencephalograms
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:37 mortality ratios in 64:103, 337 mortality ratios in male cigar and pipe smokers 73:222 nicotine induced, in cats 73:158, 159	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12 effect of smoking, in young military recruits in Poland 73:12 Electroencephalograms nicotine effect on
64:350, 351, 352 definition of 64:351 distinction from drug habituation 64:351 psychology of 64:353 Dry mouth 64:354 Dublin lung neoplasm mortality in 64:195 Ducks cigarette smoke instillation or implantation effects on tracheobronchial tree of 71:346 clearance products in 64:269 Duodenal ulcers 64:8, 337, 340 mortality rates in 64:37 mortality ratios in 64:103, 337 mortality ratios in male cigar and pipe smokers 73:222 nicotine induced, in cats	64:147 Edentulism smoking and 69:87; 72:6 Educational level 64:100, 101 and incidence of CHD, in males 68:24 smoking prevalence by 64:363 Egypt relationship of human pulmonary histology and smoking in 71:163 Electrocardiograms abnormalities, and CHD 67:58; 68:29; 71:42, 45, 47 effect of smoking 64:319; 71:45, 47; 73:13 effect of smoking, in middle-aged Dutch men 73:12 effect of smoking, in young military recruits in Poland 73:12 Electroencephalograms

04:70	67:99
Electrophoresis	morbidity, and pipe smoking
use in determining serum level of alpha-	67:99
1-antitrypsin	morbidity, and smoking
71:151	67:3, 22, 29-30, 96-98
Emotional stress	morbidity, body constitution as a factor
64:373, 374	in
	777
Emphysema	67:30
64:35, 38, 277-294, 302	morbidity, heredity as a factor in
air pollution in	67:30
64:297	
	mortality, and cigar smoking
alpha-1-antitrypsin deficiency and	67:30
71:150, 151; 72:44; 74:87-90	mortality, and pipe smoking
alveolar destruction in	67:30
64:294	mortality, effect of cessation of smoking
asthmatic form of	on
64:294	67:29
autopsy studies, in smokers vs. nonsmok-	mortality, effect of cigarette smoking on
ers	71:175
75:74-76	mortality rates
bronchitic form of	64:25, 29, 301; 67:29, 90-93; 68:66;
64:294	71:139
and bronchitis mortality rates, for men	mortality ratios
by amount smoked	64:103, 293; 67:8, 90
67:93	mortality ratios, and smoking
and bronchitis mortality ratios, by age,	67:3, 91
amount smoked, and sex	mortality ratios, by amount smoked
67:94	67:90-93
and bronchitis mortality ratios, for men	mortality ratios, by sex in United States
by amount smoked	67 :91
67:93	mortality ratios, in cigar smokers
bronchitis relation to	67:94
64:278, 279, 280	mortality ratios, in male pipe and cigar
cadmium exposure in etiology of, in	smokers
caumium exposure in energy er, in	
t t	
animals	73:217, 219
animals 74:104	73:217, 219 mortality ratios, in pipe smokers
74:104	mortality ratios, in pipe smokers
74:104 cigarette smoking effects on	mortality ratios, in pipe smokers 67:94
74:104 cigarette smoking effects on 71:9	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of
74:104 cigarette smoking effects on	mortality ratios, in pipe smokers 67:94
74:104 cigarette smoking effects on 71:9 definition of	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in
74:104 cigarette smoking effects on 71:9 definition of 64:278;67:89;71:139 development in dogs following cigarette	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of
74:104 cigarette smoking effects on 71:9 definition of 64:278;67:89;71:139 development in dogs following cigarette	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking,
74:104 cigarette smoking effects on 71:9 definition of 64:278;67:89;71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280;67:90 disability payments in U.S.	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking cate-
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking cate- gory, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S.
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40 hypersensitivity in development of	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on 64:293
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40 hypersensitivity in development of 67:111	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on 64:293 pulmonary function studies and
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40 hypersensitivity in development of 67:111 incidence in cigar/pipe smoking coal	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on 64:293
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40 hypersensitivity in development of 67:111	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on 64:293 pulmonary function studies and 74:80
74:104 cigarette smoking effects on 71:9 definition of 64:278;67:89;71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280;67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40 hypersensitivity in development of 67:111 incidence in cigar/pipe smoking coal miners vs. cigarette smokers and non-	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking cate- gory, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on 64:293 pulmonary function studies and 74:80 respiratory symptoms, body constitution
74:104 cigarette smoking effects on 71:9 definition of 64:278; 67:89; 71:139 development in dogs following cigarette smoke inhalation 71:271 development of, relation of cadmium in smoke to 71:154 diagnosis of 64:278, 279, 280; 67:90 disability payments in U.S. 68:66 dyspneic form of 64:297 epidemiology of 64:280-294 excess mortality from 64:25, 277 experimentally induced in smoking dogs 72:46 grade II or III, smokers vs. nonsmokers 71:162 in horses 69:40 hypersensitivity in development of 67:111 incidence in cigar/pipe smoking coal	mortality ratios, in pipe smokers 67:94 nonsmoker prevalence of 64:297 occupational exposure in 64:298, 299, 300, 302 pathogenesis of 69:38-40 phases of 64:294 pigment deposition in 64:272, 273 premature development and smoking, autopsy studies 74:97 prevalence in males by smoking category, at autopsy 73:48 prevalence in pipe/cigar and cigarette smokers vs. nonsmokers, autopsy studies 73:45, 46 prevalence in smokers vs. nonsmokers 73:55 prevalence rates in U.S. 74:75 prospective studies on 64:293 pulmonary function studies and 74:80

morbidity, and cigar smoking

smoking effect on

respiratory symptoms, by smoking classi- fication 67:99	coronary diseases and smoking 69:12-25; 72:14-16; 73:4-13, 23; 75:14, 15
respiratory symptoms, heredity as a fac- tor in	esophageal neoplasms and smoking 72:70, 71
67:30, 102-103, 108, 111	laryngeal neoplasms and smoking
respiratory symptoms, in pipe smokers 67:99	69:58-60; 72:68 lung neoplasms and smoking
respiratory symptoms, in smokers 64:27; 67:99; 68:74	69:55-56; 72:60-65; 73:68-72; 74:37; 75:44
in smokers vs. nonsmokers, autopsy studies	lung neoplasms, by age and sex 68:94-99
73:45-47	lung neoplasms, in Iceland
smoking and etiology of 64:38, 294, 303; 67:30-31, 96,	68:94, 95 lung neoplasms, in Japan
104-107, 110-111; 69:37-38; 72:37;	68:95, 96
74:87-90 summary of previous findings on rela-	lung neoplasms, in Switzerland 68:95
tionship to smoking	maternal smoking and outcome of preg-
74:75-78; 75:5, 7, 61, 62 Emphysema Registry	nancy 69:77-80; 72:83-87
64:294	oral neoplasms and smoking
Endrin 64:145	69:58; 72:68-70; 74:53 pancreatic neoplasms and smoking
as suspected contributor to health haz-	69:60-61; 72:74; 74:57
ards of smoking 72:145	peptic ulcer and smoking 73:155-157
Enzymes	urinary tract neoplasms and smoking
activity, effect of smoking 71:165	69:60 Epiglottis
adenosine triphosphatase, effect of cilia-	laryngeal neoplasms
toxic agents on	64:212 Epinephrine
67:108 aryl hydrocarbon hydroxylase activity in	64:318
placentas at childbirth 71:410	effect in thrombus formation 67:64-65
aryl hydroxylase, effect of nickel in	effect of nicotine
cigarette smoke on induction 71:257	75:29 levels in arteries, cigarette smoking ef-
benzo(a)pyrene hydroxylase, activity in	fects on 71:57
placentas of smoking mothers 71:410	Epithelial lesions
carbonic anhydrase, carbon monoxide	in smokers
inhibition in fetal cord blood of	64:168, 170, 172, 173, 213 Epithelial tissues
smoking mothers 71:407	age effects on
carbonic anhydrase, decrease in activity	64:34
in fetal cord blood in smoking moth-	changes in female smokers 64:34
ers 71:409	changes in male smokers
effect of cigarette smoke, in rabbit lungs	64:34 cigarette smoking and
74:104, 105	64:34, 165, 167-173, 189, 213,
and macrophage function, in rabbit lungs,	263-275
74:104, 105	ciliary loss in 64:34
oxidative enzymes, effect of ciliatoxic	in ex-smokers
agents on 67:108	64:34
Epidemiological studies	histopathologic changes in 64:167-173, 231, 263-275
bladder neoplasms and smoking 72:72-74	hyperplasia in 64:34, 203
bronchopulmonary diseases and smoking 72:38-41;73:36-45	hypertrophy caused by nitrogen dioxide 69:41
cerebrovascular disease and smoking 75:29, 30	in nonsmokers 64:189
COPD and smoking	pipe and cigar effects on
74:78-80	64:34

premalignant lesions in 64:34; 75:44	mortality rates in females 64:131, 132
see also Bronchial epithelium; Esopha-	mortality rates in Japanese males by
geal epithelium	smoking and drinking characteristics
Epithelial tumors	72:71
classification of	mortality rates in males
64:174	64:130, 132
in man	mortality rates in migrants
64:146	64:134
Epitheliomas	mortality rates in pipe/cigar and ciga-
of lip, relationship of tobacco use with	rette smokers
71:361	68:102
Epoxides	mortality ratios, by age 67:150
suspected carcinogenic agents in ciga- rette smoke	mortality ratios, by amount smoked
71:265	67:150
Ergonovine	mortality ratios, by smoking classifica-
effect on blood circulation in laboratory	tion
animals with coronary disease	67:150
67:62	mortality ratios for cigar, pipe, and
Esophageal balloon technique	cigarette smokers vs. nonsmokers
64:292	73:197, 200
Esophageal epithelium	mortality ratios in
atypical nuclei in basal cells, male smok-	64:148, 149, 217; 71:289-291
ers	mortality ratios in cigarette smokers
71:292, 379-380	64:149
effect of smoking on	mortality ratios in Japanese male smok- ers vs. nonsmokers
67:36, 150-153	73:76
pathological changes by age and smoking history	mortality ratios in nonwhites
67:150-162	64:218
pathological changes by amount smoked	prospective studies of
67:152	64:217
pathological changes by smoking classi-	relative risk in cigar, pipe, and cigarette
fication	smokers vs. nonsmokers
67:150-151	73:197, 200-202
pathological changes for male smokers	retrospective studies of 64:212-217
vs. nonsmokers 67:150-153	risk gradients in, by amount smoked
Esophageal neoplasms	64:217, 218
64:37, 212-218, 234	risk ratios in
alcohol consumption and smoking in	64:213
67:152-153; 72:4, 5, 71; 73:76, 200	smoking in etiology of
frequency in smokers vs. nonsmokers	64:37, 188; 67:33, 150, 151;
71:12, 238	71:293; 72:4, 70, 71
geographical factors in	summary of previous findings on rela-
64:133	tionship to smoking
incidence of, by tobacco use	68:89, 90; 74:55
64:216	summary of retrospective studies
incidence of, in Jewish women	73:201, 202 tobacco tars in
64:135	64:218
incidence of, in U.S. 64:127	tobacco use and
income class gradients in	64:32, 217, 218
64:134	trend in mortality
induction in animals by nitrosamine	64:137
71:292	urban-rural differences in
inhalation patterns and	64:133
64:218; 73:197	Esophagus
methods and results of retrospective	effect of benzo(a)pyrene in laboratory
studies of tobacco use in	animals
71:289, 375-378	67:152-153
mortality rates	histological changes in cigar, pipe, ciga-
64:37, 133; 71:289	rette sinokers vs. nonsmokers
mortality rates, by amount smoked 67:147, 150	73:200 Fators
mortality rates, by smoking classification	Esters in cigarette smoke
67:147, 150	64:52
	· · · · · · · · · · · · · · · · · · ·

To	
Ethane	lung neoplasms in, prevalence
64:60	64:192, 193
Ethnic groups	mortality rates in
neoplasm risks in	64:36; 64:105
64 :134, 135	mortality rates in, by smoking history
neoplasm sites by	67:8-11
64 :134, 135	mortality rates in, COPD
Ethyl alcohol	71:175
carcinogenic promoter activity of	mortality rates in, coronary disease
64:217	64:322, 323, 325; 71:46-48
Ethylene	mortality rates in, coronary disease, by
64:60	smoking history
glycol	67:51
64:52	mortality rates in, coronary disease, ciga-
Euphoria	rette vs. pipe/cigar smokers
64:350	73:172, 173
Executive Office of the President	mortality rates in, coronary disease, for
64:15	men by amount smoked
Exercise	69:15
on bicycle ergometer, effect of smoking	
73:242, 243	mortality rates in, coronary disease, for
cardiac index, effect of smoking	men, by years stopped smoking
73:242, 243	69:15
effect of carbon monoxide exposure	mortality rates in, coronary disease, for
74:11, 12	men, compared to nonsmokers
effect of smoking and smoking absti-	69:15
nence	mortality rates in, gastric ulcer
73:241, 242, 246, 247	64:104
effects of CO exposure and increased	mortality rates in, laryngeal neoplasms
carboxyhemoglobin levels	64:104
75:95, 97	mortality rates in, lung neoplasms
	64:104; 71:276; 72:5; 73:71-72
influencing factors	mortality rates in, oral neoplasms
73:241, 246, 247	64:104
and pulmonary function, smokers vs.	mortality rates in, stroke, for men, com-
nonsmokers	pared to nonsmokers
74:99	69:15
relationship to mortality rates	mortality ratios in
64:101	64:36, 92, 93, 103, 104, 105
summary of findings and mechanism of	mortality ratios in, circulatory disease
action	64:104
73:246, 247	mortality ratios in, ex-cigar smokers
on treadmill, effect of smoking	64:94
73:243, 245	mortality ratios in, lung neoplasms
Ex-smokers	71:241-242
atypical nuclei in esophageal epithelium,	mortality ratios in, respiratory disease
in male	64:104
71:379-380	pneumoconiosis incidence in, in miners
chronic cough	64:298
67:98	prevalence of respiratory symptoms
decrease of lung neoplasm risk	73:39
69:57;75:43	psychosomatic disorders in
effects of cessation on body weight,	64:367
blood pressure and hypertension de-	pulmonary fibrosis in
velopment	64:274
75:16-19	pulmonary function in
effects of cessation on closing volume	73:39
abnormalities	relative risk in lung neoplasms develop-
75 :71	ment
effects of cessation on pathologic	73:71-72
changes	
75:74	risk ratios in, from neoplasms
histological changes in bronchial epi-	64:155, 158, 188
thelium at autopsy	summary of previous findings on health
73:74	consequences of cessation
low birth weight infants of	75:6
73:112-114	summary of previous findings on rela-
lung neoplasms in, lowered rates	tionship to COPD
71:11	75:61

survival after treatment for pharyngeal,	Fetus
laryngeal, or oral neoplasms	effect of maternal smoking
73:75	64:39, 343; 72:5, 83-89
thickness of vocal cords in 69:60	heart beats in, increase in smoking moth-
Extroversion	ers 71:408
64:365, 366	morbidity, effect of maternal smoking
Eye irritation	on
effects of exposure to cigarette smoke, in passive smokers	67:186
75 :99, 100	tissues of, effects of elevated carboxy- hemoglobin on
	71:407
	Fibrosis
Face	see Pulmonary fibrosis Filters
skin neoplasms of	advantages in reduction of particulates
64:147	71:269, 275
Factory workers,	cellulose acetate
mean expiratory flow rates in 64:290	64:59 charcoal, and effect of cigarette smoke
False vocal cords	on cell cultures
epithelial hyperplasia in	69:62
64:271 hyperkeratosis in	as a factor in reducing lung neoplasm
64:271	risk 74:40-41
Farmers	reduction of lung neoplasms from,
coronary disease incidence in 64:321	71:13 Finland
decreased smoking by	blood pressure differences in smokers vs.
64:323	nonsmokers
myocardial infarction in	71:103
64:323 smoking incidence in	COPD morbidity in smokers in 71:200
64:187	coronary death rate in
Fats, saturated	64:320
64:322 Fatty acid levels	lung neoplasm mortality in, relationship to tobacco use
effect of cigar, pipe, and cigarette smoke	64:176; 71:245-246
in dogs	lung neoplasms in, retrospective study
73:216 effect of smoking	of, methods 71:325, 327
73:12	peptic ulcer in, methods and results for
rise in, after smoking	retrospective and cross section stud-
71:36, 65	ies of smoking
in smokers vs. nonsmokers 71:102	71:426, 428 risk ratio in
see also Fatty acids; Free fatty acids	64:127
Fatty acids	serum lipid differences in smokers vs.
64:53 suspected carcinogenic agents of ciga-	nonsmokers in 71:98, 99
rette smoke	smoking and nicotine effects on human
71:266	blood lipids
see also Fatty acid levels; Free fatty acids	71:124 Fires
Federal insecticide regulations	smoking as cause of
64:61	64:344, 345; 67:187-188
Federal Trade Commission 64:8, 15	Fitness tests smokers vs. nonsmokers
Fertility	73:245
and smoking	Flavors antismoking measures using
69:79-80	64:354
Fetal death effect of maternal smoking	Flax mill workers
64:39, 343; 67:185; 69:77-78;	chronic respiratory diseases in 64:289, 299
73:123-135	Fluoranthene
epidemiological studies, in smokers vs. nonsmokers	alcoholic solution of, penetrability of
73:126-132	esophageal epithelium 71:292

in caffeine solution, effect on esophageal	CHD mortality and morbidity in
tissue in laboratory animals	71:94, 97
67:152-153 in carbon black	cigarette smoke effects on animal tissue
64:147	in 71-242-244-240
in ethanol, effect on esophageal tissue in	71:343, 344, 349
laboratory animals	COPD mortality of smokers in 71:201
67:152-153	esophageal neoplasms in, retrospective
Forced expiratory flow rates	studies of tobacco use
64:288-293	64:214; 71:378
Forced expiratory volume	laryngeal neoplasms in, relationship to
64:288, 289, 290, 291, 293, 294, 298	tobacco use
decline in smokers, by race	64:205, 207; 71:355, 357
75:72	lung neoplasms in, methods of retro-
Formaldehyde	spective study of smoking in
64:60, 61, 268	71:326
ciliastatic action of	oral neoplasms in, by type of smoking 64:199, 201
64:61, 268 ciliatoxic agent	oral neoplasms in, relationship of tobac-
67:107	co use and
as suspected contributor to health haz-	71:363
ards of smoking	Free fatty acids
72:145	64:52
in tobacco smoke	plasma, effect of nicotine, in rats
67:107	74:13
toxic action of	plasma, effect of smoking on
64:295	69:27 see also Fatty acid levels; Fatty acids
tracheobronchial irritation from 64:266	Fried foods
	64:100
Formic acid ciliato xic agent	Fume exposure
67:108	in smokers vs. nonsmokers, by race and
in tobacco smoke	sex
67:108	75:69, 70
Formosa	Fungi
acute effect of cigarette smoke on hu-	carcinogenic contamination of tobacco
man pulmonary function in	68:92, 93
71:169	Fungicides concentration in cigarette smoke
Framingham Study	71:265, 266
64:291, 323	Furfural
angina pectoris in	as suspected contributor to health haz-
64:325	ards of smoking
duration of smoking habit and incidence of CHD	72:145
68:17	
effect of coffee drinking on mortality in	
smokers vs. nonsmokers	
75:20	Ganglia, parasympathetic
epidemiologic study of CHD, CDV, in-	64:69, 71, 317, 318
termittent claudication, and smoking	Ganglion cells
74:14-16	nicotine effect on
interaction of smoking and other risk factors in CHD	64:69,70
73:8	paralysis of
morbidity ratios for CHD, by smoking	64:69, 70
habit	Gas adsorbents carbon granules as
68:18; 71:24	64:61
mortality rates in	Gas phase, cigarette smoke
64:324	69 :63
France	effect on mucus flow rates in cats
bladder neoplasms in, methods and re-	72:47
sults in retrospective studies of smok-	harmful constituents in
ing 71-291-292	72:143
71:381-383 bladder neoplasms in, retrospective	Gas phase, tobacco smoke
bladder neoplasms in, retrospective studies	64:60 acetaldehyde in
64:219, 220, 221	64:60

acetone in	mortality rates in
64 :60	64:130, 133
acetylene in	mortality rates in, in smokers
64:60	64:149
acrolein in	mortality rates in, Japanese smokers vs.
64:60	nonsmokers
ammonia in	74:56, 57
64:60	mortality ratios in
argon in	64:148, 149, 228
64:60	prospective studies of
butane in	64:227
64:60	retrospective studies of
carbon dioxide in	64:225, 226, 227, 228
64:60	retrospective studies of, by smoking pat-
carbon monoxide in	tern
64:60	64:226, 227
ethane in	summary of previous findings on rela-
64:60	tionship to smoking
ethylene in	68:90; 74:55
64:60	
formaldehyde in	tea drinking and smoking in etiology of 74:56,57
64:60	, .
hydrogen cyanide in	tobacco tars in
64:60	64:228
	trends in prevalence of
hydrogen in	64:135
64:60	U.S. incidence of
hydrogen sulfide in	64:127
64:60	Gastric secretion
methane in 64 :60	effect of nicotine
methanol in	72:97
	effect of nicotine in laboratory animals
64:60	73:158, 159
methyl chloride in	effect of smoking
64:60	64:340
methyl ethyl ketone in	effect of smoking in ulcer patients
64:60	73:157, 158
methyl nitrate in	Gastric ulcers
64:60	64:8, 37, 337, 340
nitric oxide in	healing of, after cessation of smoking
64:266	64:337
nitrogen dio xide in	mortality ratios in
64 :60	64:37, 113, 337
nitrogen in	Gastrointestinal disorders
64:60	prevalence in cigarette and pipe/cigar
oxygen in	smokers
64:60	73:222
phenol in	smoking and
64:267	72:5, 6, 97, 98
	General practitioners
propane in 64:60	coronary disease incidence in
	64:321, 322
propylene in	Genetic factors
64:60	64:321, 385
Gastric acidity	alpha-1-antitrypsin deficiency
effect of smoking on	72:44
67:182	alpha-1-antitrypsin deficiency and smok-
Gastric motility	ing in COPD development
64:340	74:87-90; 75:72-74
Gastric neoplasms	in bronchitis development
64:37, 38, 225-229, 235	67:102-104, 108-109
decline in mortality from	cessation of smoking and
64:133	64:191
geographic factors in	COPD pathogenesis and
64:133	71:148, 150-152, 205
income class gradients in	coronary disease and
64:134	72:18
migrant mortality in	in cough development
migrant mortauty in	in cough development

in emphysema development 67:30, 102-103, 108-109, 111	tobacco chewing in 64:202
and heart disease	see also Mouth neoplasms; Oral neo-
67:53-54, 57	pla sm s
lung neoplasms and 64:167, 232	Gingivitis
in respiratory tract disease development	incidence among Danish Royal Marines 69:86
67:30, 108 short run changes in, in humans	incidence among Dutch Navy recruits 69:86
64:191	incidence among U.S. Naval trainees
smoking and	69:86
64:190, 319; 71:5; 72:18, 44 smoking and, in lung neoplasm develop-	smoking and 69:85-86; 72:6
ment	Gingivitis, Vincent's
74:37	relationship to smoking
susceptibility in neoplasm epidemiology 64:190, 191, 192, 193	69 :86
twin studies, effects of smoking	Ginseng root 64:355
71:49-52, 99	Glossary
Genitourinary diseases	terms used in smoking and ventilatory
see Urogenital diseases	function
Genitourinary neoplasms see Urogenital neoplasms	71:215
Geographic factors	Glucose intolerance as a risk factor in CHD
neoplasm incidence by	73:8
64:133	Glucose metabolism
neoplasm mortality by 64:133	cardiovascular effects of
Germany	68:40, 41
CHD morbidity and mortality in 71:95-96, 97	and insulin response, alteration effects on myocardial response
cigarette smoke inhalation effects on	71:66 Glutamic acid
animal respiratory tract in 71:350	64:54
laryngeal neoplasms in 64:205	Glutamine 64:54
laryngeal neoplasms in, relationship to	Glutathione
tobacco use 71:355	inhibition of smoke cytotoxic action on macrophages
laryngeal neoplasms in, retrospective	69:42
study of 64:206	Glycerol 64:52, 62
lung neoplasms in, methods of retro-	Glycogen
spective study of smoking in 71:323, 325, 326	levels in mice lung exposed to cigarette smoke
polonium-210 levels in lungs of smokers	71:161
in	Glyoxal
71:336 smoking and nicotine effects on human	64:53 Goblet cells
blood lipids	morphological changes in 64:35, 268, 271
71:125 Gestational age	Graphite
effect on perinatal mortality rates in	respiratory tract carcinoma in workers
smoking vs. nonsmoking mothers 73:126-132	exposed to 71:256
and low-birth-weight infants, effect of	Grief,
maternal smoking 73:103-106	drug use in 64:353
Gingival neoplasms	Grip strength
64:197, 202	effect of smoking 73:241, 242
cigar smoking in 64:202	Group psychotherapy
pipe smoking in	cure of tobacco habit by 64:354
64:202 retrospective study of, by type of smok-	Growth inhibitors
ing	and carcinogenesis
64:201	68:92

Guanethidine	myocardial infarction in pipe and cigar
blockage of nicotine cardiac stimulation	smokers under
by	71:32, 38-39
71:57	Heart
Guinea pigs 64:296	effect of CO exposure
induced pulmonary damage in	74:10-12 effect of nicotine
64:266	64:318; 67:60; 71:36; 74:13
lung neoplasm development following	effect of smoking
chronic nickel carbonyl or dust in-	64:318; 67:60-62
halation	see also Myocardium
71:256	Heart disease
lungs of, cigarette smoke effects on	64:320
surfactant activity 71:255	description of
respiratory changes in, exposed to ciga-	64:320
rette smoke	U.S. mortality rate from 64:25, 317, 320
71:162	see also Coronary diseases
sulfur dioxide effect on	Heart rate
64:266	64:318, 326
	effect of catecholamines on,
	67:60
	effect of CO exposure
Habituation	74:11, 12 effect of exercise and smoking
64:350, 352, 354	73:242-246
definition of	effect of nicotine on
64:351	67:60; 74:13
Hamsters	effect of smoking and coronary disease
benzo(a)pyrene inhalation by, effect of	67:61;71:45,47
asbestos dust on carcinoma induction	effect of smoking on
71:162	67:60
bladder neoplasms in, fed 2-naphthyl- amine	fetal, effect of maternal smoking 71:408
71:296	Hematite
cigarette smoke instillation or implanta-	64:193
tion effects on tracheobronchial tree	dust, respiratory tract neoplasms in ham-
of	sters exposed to
71:268, 346-348	71:348
induced carcinogenesis in 64:166	Hematocrit
induced oral neoplasms in	64:319
64:202, 203, 204, 232	infant, smoking mother effects on
laryngeal neoplasms following smoke in-	71:407, 409 variations in, effect on coronary blood
halation	flow
71:12	71:66
larynx of, effect of cigarette smoke inhalation on	Hemoglobin
71:281, 284	64:319
lung and embryos, effects of cigarette	affinity for oxygen, CO effects on 2,3-di-
smoke tars on	phosphoglycerate control of
71:343-344	71:60-61
pulmonary changes from chronic nitro- gen dioxide inhalation	effect of smoking on oxygen affinity 69:29
71:220	levels, relation to incidence of coronary
respiratory tract of, C-14 labeled particu-	disease
lates deposition in	67:58
71:281-282	risk factor in CHD
respiratory tract of, cigarette smoke in-	68:29
halation effects on	variations in, effect on coronary blood flow
71:268, 351	71:66
Harvard College alumni study	Hepatomas
64:385, 386	64:145, 321
student study	Heptachlor
64:383	64:62, 145
Health Insurance Plan	Heredity
69-10 20	see Genetic factors

Heterocyclic compounds 64:54	in cigarette smoke, effects on body oxidative metabolism
carcinogenic properties in cigarette	71:62
smoke 71:264, 265	ciliastatic action of 64:61, 268
Heterocyclic nitrogen compounds	as respiratory enzyme poison
carcinogenicity	64:60
67:127	toxicity of
in tobacco smoke	64:265, 266
67:127	Hydrogen sulfide
Hexamethonium	64:60
blockage of nicotine cardiac stimulation by	as suspected contributor to health haz- ards of smoking
71:57	72:145
High school students	Hydrolases
smoking in	reduction of in smokers' alveolar macro-
64:370	phages
Hippocampus	69:42-43
nicotine effect on	Hydroperoxides
64:71	64:52, 72
Histiocytes 64:269	Hydroquinone 64:54
Histological studies	bladder neoplasm induction in labora-
in laboratory animals	tory animals
73:49, 50	67:156
lung neoplasms and smoking	as suspected contributor to health haz-
74:38; 75:44-46	ards of smoking
lung neoplasms in U.S. veterans	72:145
73:73	3-Hydroxyanthranilic acid bladder neoplasm induction in labora-
macrophage function and 74:104, 105	tory animals
in smokers vs. nonsmokers	67:156
74:8, 49	urinary excretion, smokers vs. nonsmok-
Holland	ers
lung neoplasm mortality rate in	67:156
64:176	Hydro xy-cotinine structure of
smoking habits in 64:177	64:72
Honolulu Heart Study	Hydroy-coumarin
interaction of smoking and other risk	64:145
factors in CHD	3-Hydroxykynurenine
73:8, 9	bladder neoplasm induction in labora-
Hookahs	tory animals
smokers of, laryngeal neoplasm induc-	
Aini	67:156
tion in 71:355	67:156 excretion of, smokers vs. nonsmokers
71:355	67:156 excretion of, smokers vs. nonsmokers 67:156
	67:156 excretion of, smokers vs. nonsmokers
71:355 Humectants	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296
71:355 Humectants 64:52	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul-
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76 Hypercholesterolemia
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger 64:355	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopulmonary disease 68:75, 76 Hypercholesterolemia and hypoxia, in arteriosclerosis 69:26 incidence in Belgian military men
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger 64:355 Hydrocyanic acid as probable contributor to health hazards of smoking	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76 Hypercholesterolemia and hypoxia, in arteriosclerosis 69:26 incidence in Belgian military men 74:17, 18
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger 64:355 Hydrocyanic acid as probable contributor to health hazards of smoking 72:144	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76 Hypercholesterolemia and hypoxia, in arteriosclerosis 69:26 incidence in Belgian military men 74:17, 18 incidence in male British business execu-
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger 64:355 Hydrocyanic acid as probable contributor to health hazards of smoking 72:144 Hydrogen	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76 Hypercholesterolemia and hypoxia, in arteriosclerosis 69:26 incidence in Belgian military men 74:17, 18 incidence in male British business execu- tives, by smoking habit and clinical
71:355 Humectants 64:52 Humidity and pathologic effects of exposure to cigarette smoke 75:99 Hungary methods used for retrospective studies of lung neoplasms in 71:328 Hunger 64:355 Hydrocyanic acid as probable contributor to health hazards of smoking 72:144	67:156 excretion of, smokers vs. nonsmokers 67:156 excretion of, smoking effects on 71:296 Hydroxyproline level in mice lung exposed to cigarette smoke 71:161 Hypercapnia and chronic obstructive bronchopul- monary disease 68:75, 76 Hypercholesterolemia and hypoxia, in arteriosclerosis 69:26 incidence in Belgian military men 74:17, 18 incidence in male British business execu-

as a risk factor for coronary heart disease 72:16, 17; 73:8, 9, 11

Hydrogen cyanide 64:60

Hyperchromatic nuclei	and arteriosclerosis
in epithelial cells of smokers 64:168, 173	69:26 carbon monoxide-induced
Hyperinsulinemia	73:18, 23
during oral glucose tolerance tests after	effect of nicotine
smoking	72:21
68:41 Hyperplasia	experimentally induced in rats 72:21
64:168, 169, 170, 172, 203, 231	postoperative, in smokers
basal cell	71:174, 230
64:168, 169, 170, 172, 173, 231	postural, mechanism in asymptomatic
basal cell, and smoking	smokers vs. nonsmokers
67:36 betel nut chewing and	71:147 tissue, carbon monoxide effects on
64:203	71:61
bronchial mucosa, by smoking history in	
men	
67:105 nonspecificity of	
64:172	Iceland
precancerous aspects of	lung neoplasm mortality rate in
64 :166	64:176
reversibility of	lung neoplasms in, relationship to to-
64:172 Hyperpnea	bacco smoking 71:244
from nicotine	Immune system
64:70	response to benzo(a)pyrene-induced lung
Hypersensitivity	neoplasms
effect in emphysema development	74:48, 49 suppression of immunoglobulin re-
67:111 Hypertension	sponse, by nicotine or water soluble
incidence in male Israeli civil servants	fraction of cigarettes
74:18	75:77
interaction with smoking as risk factor in	Income class
cerebrovascular disease 73:9	lung neoplasm mortality by 64:133, 134
pulmonary, and chronic obstructive pul-	smoking prevalence by
monary disease	64:362
68:74-76	Indeno(1,2,3-cd)pyrene
as a risk factor for coronary heart disease 64:32, 321; 72:16, 17; 73:8, 9	carcinogenicity 67:127
risk of, in smokers vs. nonsmokers	carcinogenic properties in smoke
68:22, 44	67:127; 71:265
smoker mortality rates in	India
64:325 smoking effects in	64:205 esophageal neoplasms in, retrospective
64:325; 75:15-19	studies of tobacco use with
summary of recent findings	64:214, 215; 71:378
75 :33	laryngeal neoplasms in, relationship to
in women smokers with CHD	tobacco use
68:22 Hypnotism	71:355, 356 laryngeal neoplasms in, retrospective
cure of tobacco habit by	studies of
64:354 Hypothalamus	64:205
nicotine stimulation	oral neoplasms in, relationship of tobac-
64 :71	co use 71:362, 366
Hypoxemia carbon dioxide effects on	oral neoplasms in, retrospective studies
71:61,75	of, by type of smoking
and chronic obstructive bronchopul-	64:199, 201
monary disease	relationship of smoking to thrombosis in
68:75, 76	71:131 relationship of smoking to tuberculosis
smoking and 72:22	in
Hypoxia	71:227
aortic atheromatosis development in rab-	smoking and nicotine effects on human
bits exposed to 71:64	cardiovascular system 71:117
, 1.07	f 1 · 1 1 f

Indole, 1-methyl-	Influenza viruses
possible initiator in tobacco carcino-	effect of cigarette smoke on, in mice
genesis	68:70, 71
71:265	effect on dogs inhaling cigarette smoke
Industrial carcinogens	71:351 enhancing effect in vitro on oxidized
64:166	
Industrial hazards	nicotine 69:42
effect of dust on COPD development 71:175	
effect on COPD development in smokers	lung neoplasm induction by 64:172
71:153, 154, 218, 219	neoplasm induction by
Industrial pollution	64:166
in etiology of bronchitis	resistance of mice following cigarette
67:108 110	smoke inhalation
in etiology of emphysema	71:173
67:108,110	Inhalation
Infant mortality	64:91, 187, 188
black vs. white smoking mothers	amount smoked and
73:129, 132	64:163
comparison of stillbirth and abortions in	bladder neoplasm prevalence and
smoking and nonsmoking mothers	64:219, 223, 225
71:395, 405,406	carbon monoxide, effect on blood circu-
differences of birth weight and, in smok-	lation in coronary disease patients
ing and nonsmoking mothers	67:63
71:404	as carcinogen application method
effect of genetic differences and smoking	64:166 cigarette smoke, and chronic cough
73:132 effect of maternal smoking	67:97
67:185; 69:77,78; 71:415; 72:83,	cigarette smoke, and coronary disease
87;73:123,135	67:54
effect of previous obstetrical experience	cigarette smoke, and mortality
and smoking	67:7, 9
73:132	cigarette smoke, effect on blood pressure
effect of socioeconomic background and	67:54
smoking	coronary mortality and
73:131, 132	64:324
epidemiological studies in smokers vs.	effect of previous smoking habits or
nonsmokers	patterns of
73:126, 132	73:186, 189
factors other than smoking	effect on blood circulation in dogs
73:131, 132	67:63
low birth weight and 72:86	esophageal neoplasms and 64:213, 218
risk of low-birth-weight infants of smok-	frequency-per-puff in cigar and cigarett
ing vs. nonsmoking mothers	smokers
73:126, 132	73:186, 189
sudden death, relation of smoking and	laryngeal neoplasms and
nonsmoking mothers	64:209, 212
71:407	and lung neoplasms in animals
Infants	68:93
development of bronchitis and pneu-	lung neoplasms prevalence by
monia, and maternal smoking	64:159, 230
75:103	by male smokers, and mortality rate
growth rate, effect of maternal smoking	67:11
on (0.70	as measures of exposure to cigarett
69:78	smoke
Infectious diseases	67:15
64:38, 276, 277, 302	mortality rate from
Influenza	64:36, 91, 92, 99, 111
64:195, 277, 302	mortality rate, inhalers vs. noninhalers
incidence from antibody deficit in smok-	67:7; 68:5
ing	mortality ratios
72:109	64:91, 111
mortality ratios in	particulate retention in
64:276	64:264, 350; 69:62
prevalence in pipe and cigar smokers	personality factors in 64:367
73:220, 221	04:30/

```
Insurance policyholders
    pipe, cigar, and cigarette smokers
       73:184.189
                                                     breathlessness in
    possible determining factors in patterns
                                                         64:287
       of
                                                  Intelligence quotient
       73:183, 184
                                                     64:370
    of radon
                                                  Intermittent claudication
       64:145
                                                     decrease in exercise time after exposure
    risk in, in lung neoplasms
                                                         to M
      64:188
                                                         75:28
    stimulatory effect from
                                                     effects of coffee drinking and cigarette
      64:350
                                                         smoking
   of thoron
                                                         75:20
      64:145
                                                     smokers vs. nonsmokers
   tobacco smoke, and bronchogenic carci-
                                                         72:22, 26
                                                     smoking and
       67:129
                                                        73:21
   tobacco smoke, and epidermoid carci-
                                                     smoking as a major risk factor
      noma
                                                        74 - 14 - 16
      67:129
                                                  International Cooperative Study
   tobacco smoke, and papilloma formation
                                                     interaction of smoking and other risk
      67:129
                                                        factors in CHD
   summary of previous findings on
      75:4
                                                  International Statistical Classification of
 Inorganic compounds
                                                     Diseases, Injuries, and Causes of
   64:141
                                                     Death
 Insecticides
                                                     64:101
    64:61, 145
                                                  Intestinal neoplasms
    aldrin as
                                                     64:103
       64:62
                                                  Intestinal tone,
    arsenic as
                                                     tobacco effect on
      64:61
                                                  64:355
Intratracheal injections
   chlordane as
                                                     application of carcinogens by
      64:62, 145
   DDT as
                                                        64:166
      64:62, 145
                                                  Involuntary smoking
   Diazinon as
                                                     see Passive smoking
                                                  Ionized radiation
      64:62
   dieldrin as
                                                     neoplasm induction by
                                                        64:142, 143
      64:62
                                                     threshold levels in
   Dylox as
                                                 64:143
Ireland
      64:62
   Endosulfan as
                                                     acute effect of cigarette smoke on hu-
      64:62
                                                        man pulmonary function in
   endrin as
                                                        71:168
      64:62
                                                     CHD mortality and morbidity in
   Guthion as
                                                        71:96
      64:62
                                                     CHD mortality and morbidity in, smok-
   heptachlor as
                                                        ers and nonsmokers in
      64:62, 145
                                                        71:94
   lead arsenate as
                                                     lung neoplasms in, methods of retrospec-
      64:61
                                                        tive study of smoking in
   malathion as
      64:62, 145
                                                     maternal smoking and infant weight in
   parathion as
                                                     71:399
methods used in study of smoking and
      64:62, 145
   paris green as
                                                        human pregnancy
      64:61
                                                        71:394, 396
   Sevin as
                                                     Northern, mortality rates from COPD
      64:62
                                                        71:144
   TDE as
                                                     occupational exposure and smoking rela-
      64:62, 145
                                                        tionships to COPD in
                                                     71:218 relationship of lung neoplasms to smok-
Insoluble particles
   clearance mechanisms
                                                        ing, air pollution and residence in
      64:267
                                                     71:218 serum lipid differences in smokers vs.
Insufflation
  application of carcinogens by
                                                        nonsmokers in
      64:166
                                                        71:99
```

smoking and meotine effects on numan	kidney and bladder neoplasms of smok-
peripheral vascular system	ers in
71:133	71:295
smoking relationship to thrombosis in	lung neoplasms, mortality of smokers
71:130	and nonsmokers in
Iron oxide	71:243
64:166	
	lung neoplasms, retrospective smoking
Irritants	study, methods of
tissue tolerance to	71:326,328
64:353	mortality ratios, esophageal neoplasms in
Ischemia	71:291
64:319	mortality ratios, kidney neoplasms,
Ischemic heart disease	smokers vs. nonsmokers
see Coronary disease	73:77
Isomethylnicotinium ion	mortality ratios, pancreatic neoplasms in
structure of	cigarette smokers
64 :72	71:298
Isoparaffins	neoplasm risk in
64:51	64:127
Isoprene	relationship of lung neoplasms to smok-
64:52	ing, air pollution, and residence in
Isoprenoids	71:255
64:49, 51	"Tokyo-Yokohama asthma"
structural formula of	64:276
64:49	Jena
Isopropyl oil	autopsy records in
	64:150
lung neoplasm risk from	
64:193	Jews
Israel	esophageal neoplasms in, in women
cigarette smoke effects on animal em-	64:135
bryos in	gastric neoplasms in
71:343	64:135
mortality rates from COPD in	increased smoking among, in women
71:140	64:363
Isuprel	Job changing
aerosol	smoker prevelance of
64:292, 293	64:363
Italy	Johns Hopkins student study
human experimental data on smoking	64:384
and pregnancy	Joint Tuberculosis Society of Great Britain
71:409	64:6
prohibition of advertising in	
64:8	
serum lipid differences	
in smokers vs. nonsmokers in	
71:100	
	Keratin
tracheobronchial tree changes in smokers	
and nonsmokers in	oversecretion of, in stomatitis nicotina
71:263	64:271
	Keratosis, senile
	64:203
	Keto-acids
	64:53
Japan	Ketoamide
bladder neoplasms in, methods and re-	structure of
sults in retrospective studies of smok-	64:72
ing	Ketones
71:382, 384	64:52
CHD mortality	Khat
64:320	64:349
CHD mortality and morbidity in	Kidney neoplasms
71:96	
	epidermoid, associated with cigarette
cigarette smoke effects on human fetal	smoking
lung tissue in	69:60
71:343	mortality rates in U.S.
esophageal neoplasms in retrospective	71:296
studies of tobacco use in	mortality ratios in
71:378	64:148, 149
	•

mortality ratios, Japanese men and wo-	alcohol consumption in
men, smokers vs. nonsmokers 73:77	64:210
mortality trends in	development in hamsters following ciga- rette smoke inhalation
64:137, 149	71:239
relationship of tobacco use and	development in smokers
71:13, 299	71:12, 281
in smokers and nonsmokers	dose effect in
71:238, 294-295	64:210, 234
smoking and	effect of cessation of smoking on
69:60, 64; 73:77, 78	67:149
see also Urogenital neoplasms	epidemiological studies
Korea	72:68 extrinsic origin of
relation of human pulmonary histology	64:211, 212
and smoking in 71:255	incidence in males and females, by age
tracheobronchial tree changes in smokers	68:101, 102
and nonsmokers of	incidence of secondary primary, in
71:259	smokers vs. nonsmokers
Kreyberg classification	75 :50
comparison with World Health Organiza-	income class gradients in
tion classification	64:134
64:174	inhalation effects in
in lung neoplasms	64:209
64:35, 159, 173	inhalation patterns and, 73:193
Kreyberg study	intrinsic origin of
lung neoplasms and smoking 69:55-56	64:211, 212
07.33.30	mortality rates
	64:37, 133, 135, 210; 71:277
	mortality rates, by age
	67:149
Labeling	mortality rates, by age for men
of tobacco products	67:148
64:8	mortality rates, by amount smoked 67:149
Laboratory techniques for induction of experimental neoplasms	mortality rates, by smoking classification
69:63-64	67:147, 149
Laborers	mortality rates, for women
coronary incidence in	64:134; 67:153
64:321	mortality rates, in smokers vs. nonsmok-
Lactate metabolism	ers
effect of smoking, in patients with an-	71:237-238
gina pectoris	mortality rates, in United States by age
73:13	67:148
Lactation effect of maternal smoking	mortality rates, in United States by sex 67:148
73:138-141	mortality ratios
effect of maternal smoking, summary of	64:113, 148, 149; 71:277-279
findings	mortality ratios, and smoking
73:141	67:33-35, 148-149
epidemiological studies	mortality ratios, by age
73:138	67:149
experimental studies	mortality ratios, by age for men
73:138, 139	67:148
Lactones carcinogenicity of	mortality ratios, by amount smoked 67:149
64:145	mortality ratios, by smoking classifica-
suspected carcinogenic agents in ciga-	tion
rette smoke	67:149
71:265	mortality ratios, cigar smokers vs. non-
Laparotomy	smokers
postoperative pulmonary complications	67:35
following, in smokers vs. nonsmokers	mortality ratios for pipe, cigar, and
71:174	cigarette smokers vs. nonsmokers
Laryngeal neoplasms	73:193, 196, 197
64:37, 205-212, 233, 234; 71:12, 237-239, 281	mortality ratios in, in females 64:132
43 (-437, 401	V 114 V 20